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09/419,749	10/16/1999	TAD A. DEFFLER	063170.6308	1735
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EXAMINER COLBERT, ELLA				
ART UNIT		PAPER NUMBER		
3696				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

09/419,749

Applicant(s)

DEFFLER ET AL.

Examiner

Ella Colbert

Art Unit

3696

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6 and 9-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 9-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/IC)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
Paper No(s)/Mail Date: 10/14/08 and 11/30/07.

DETAILED ACTION

1. Claims 1-4, 6, and 9-22 are pending. Claim 3 has been amended and claim 22 has been newly added in this communication filed 07/31/08 entered as Response to Non-Final Action.
2. The IDSs filed 11/30/07 and 10/14/08 has been entered and considered.
3. The 35 USC 112 second paragraph from the prior Office Action is hereby withdrawn.
4. The objection to claim 3 from the prior Office Action has been overcome by Applicants' amendment and is hereby withdrawn.

Specification

The Specification is objected to because Page 2, line 29 recites "users to create a macro by recording series of keystrokes. This line should recite "users to create a macro by recording a series of keystrokes". Page 4, line 9 recites "macro language processors the present invention provides an. This line should recite "macro language processors in the present invention provide an". Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 2, 3, 4, 6, 9-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1, 3, and 9 recite "a procedure not performed" which is not found in the Specification..

Claims 9-21 do not have any mention of "a computer –readable medium encoded with logic" found in Applicants' Specification to perform the steps of claims 9-21. Claims 2, 4, 6, and 10-22 are also rejected because they depend from a rejected claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is vague, unclear, and indefinite what Applicants' mean by "a procedure not performed". Do Applicants' mean the procedure not performed is the macro language not being compiled? Claims 2, 4, 6, and 10-22 are also rejected because of their dependency from a rejected base claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement

thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 2, 6, 10-13, and 22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Based on Supreme Court precedent (*Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)) and recent Federal Circuit decisions, § 101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing (the Supreme Court recognized that this test is not necessarily fixed or permanent and may evolve with technological advances. *Gottschalk v. Benson*, 409 U.S. 63, 71 (1972).

If neither of these requirements is met by the claim(s), the method is not a patent eligible process under 35 U.S.C. § 101.

In this particular case regarding the first test, in performing the steps of the claimed subject matter, there is no requirement that a machine be used, thus the claims are not considered sufficiently tied to another statutory class.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander Sakharov, "Macro Processing in High-Level Languages", hereafter Sakharov and (US 4,931,928) Greenfield in view of (US 5,737,592) Nguyen and further in view of (US 5,295,059) Brooks et al, hereafter Brooks.

With respect to claim 1, Sakharov discloses, maintaining a predefined macro language comprising a plurality of keywords and a plurality of associated commands for execution (pg. 61, line 3-pg. 63, line 5). Sakharov failed to disclose, parsing a macro language expression to identify a new keyword in the macro language expression that is not within the plurality of keywords in the predefined macro language. Greenfield discloses, parsing a macro language expression to identify a new keyword in the macro language expression that is not within the plurality of keywords in the predefined macro language (col. 8, line 1-col. 9, line 34, Fig. 3 and Fig. 4). Sakharov and Greenfield failed to disclose, retrieving, from a registry of keywords and associated executable codes, an executable code associated with the new keyword identified in the macro language expression, the executable code corresponding to a procedure not performed by the execution of the predefined macro language. Nguyen discloses, retrieving, from a registry of keywords and associated executable codes, an executable code associated with the new keyword identified in the macro language expression, the executable code corresponding to a procedure not performed by the execution of the predefined macro language (col. 6, lines 7-14).

Sakharov, Greenfield, and Nguyen failed to disclose, executing the executable code retrieved from the registry to run the extended macro command associated with the new keyword in the macro language expression without recompiling the macro language,

the executable code associated with the new keyword not included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the predefined macro language alone. Brooks discloses, executing the executable code retrieved from the registry to run the extended macro command associated with the new keyword in the macro language expression without recompiling the macro language, the executable code associated with the new keyword not included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the predefined macro language alone (col. 8, lines 3-68 and col. 9, lines 1-60). Sakharov failed to disclose, retrieving, from a registry of keywords and associated executable codes, an executable code associated with the new keyword identified in the macro language expression, the executable code corresponding to a procedure not performed by the execution of the predefined macro language. However, this step is well known in the art and performed at runtime and it is not a recompilation but it is a copy as many times as it (the macro) is called. There are three different types of macros, such as preprocessor, compiler, and runtime. A preprocessor macro is defined as for example, the C preprocessor is a macro processor that is used automatically by the C compiler to transform the program before actual compilation; compiler macros are defined as controlling the state of the macro with compiler command options; and a runtime macro is defined as tells the runtime intercept how to identify the construct to converted differently and how to render or convert it to the alternative result which usually results in runtime macros that are executed by conversion code at runtime. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a registry of keywords and an associated executable code to retrieve and to execute because it is

well known in the art that the C language itself has a registry of 33 keywords with the keywords being used in the source code and compiling of the macro language.

With respect to claim 2, Sakharov discloses, extending the registry of keywords and associated executable codes by inserting a new keyword representing a new extended macro command and a new executable code associated with the new keyword (pg. 60, para's 4-pg. 61, line 2).

With respect to claim 9, this independent claim is rejected on grounds corresponding to the reason given for rejected independent claim 1. Applicants' claim 9 has a computer-readable medium encoded with logic operable, when executed on a computer processor, to perform the steps of determining, based on a predetermined syntax of the macro language with steps corresponding to the method of claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander Sakharov, "Macro Processing in High-Level Languages", hereafter Sakharov, (US 5,295,059), (US 4,931,928) Greenfield, (US 5,737,592) Nguyen et al, hereafter Nguyen and (US 5,295,059) in view of Brooks et al, hereafter Brooks, and

further in view of M. Douglas McLroy, "Macro Instruction Extensions of Compiler language", hereafter McLroy.

With respect to claims 3, Sakharov failed to disclose, a macro handler operable to maintain a predefined macro language comprising a plurality of keywords and a plurality of associated commands for execution. Brooks discloses, a macro handler operable to maintain a predefined macro language comprising a plurality of keywords and a plurality of associated commands for execution (col. 8, lines 3-50).

Sakharov failed to disclose, a parser operable to parse a macro language expression to identify a new keyword in the macro language expression that is not within the plurality of keywords in the predefined macro language and a registry of keywords and associated executable codes including one or more keywords and one or more executable codes that are not included in the predefined macro language, each keyword being associated with a respective one of the executable codes, each executable code corresponding to a procedure not performed by the execution of the predefined macro language executable code corresponding to a procedure not performed by the execution of the predefined macro language, wherein the macro handler is further operable to receive the new keyword from the parser, retrieve, from the registry of keywords and associated executable codes, the executable code associated with the new keyword identified within the macro language expression, and execute the retrieved executable code to run the extended macro command associated with the new keyword without recompiling the macro language, the executable code associated with the new keyword not included

in the performance of a procedure not performed by execution of the predefined macro language alone. Greenfeld discloses, a parser operable to parse a macro language expression to identify a new keyword in the macro language expression that is not within the plurality of keywords in the predefined macro language; and (col. 8, line 1-col. 9, line 34, fig. 3 and fig. 4). Sakharov failed to disclose, a registry of keywords and associated executable codes including one or more keywords and one or more executable codes that are not included in the predefined macro language, each keyword being associated with a respective one of the executable codes, each executable code corresponding to a procedure not performed by the execution of the predefined macro language executable code corresponding to a procedure not performed by the execution of the predefined macro language, wherein the macro handler is further operable to receive the new keyword from the parser, retrieve, from the registry of keywords and associated executable codes, the executable code associated with the new keyword identified within the macro language expression, and execute the retrieved executable code to run the extended macro command associated with the new keyword without recompiling the macro language, the executable code associated with the new keyword not included in the performance of a procedure not performed by execution of the predefined macro language alone. Nguyen discloses, a registry of keywords and associated executable codes including one or more keywords and one or more executable codes that are not included in the predefined macro language, each keyword being associated with a respective one of the executable codes, each executable code

corresponding to a procedure not performed by the execution of the predefined macro language executable code corresponding to a procedure not performed by the execution of the predefined macro language, wherein the macro handler is further operable to receive the new keyword from the parser, retrieve, from the registry of keywords and associated executable codes, the executable code associated with the new keyword identified within the macro language expression, and execute the retrieved executable code to run the extended macro command associated with the new keyword without recompiling the macro language, the executable code associated with the new keyword not included in the performance of a procedure not performed by execution of the predefined macro language alone (col. 6, lines 7-14). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify in Sakharov the teachings of Brooks because such a modification is well known in the art and would enhance Sakharov's extended keywords with the parser receiving the keyword first, then parsing the expression and the macro handler in response saving the previous contents of the processor registers (keywords) during execution of the main program with the user selecting the functions and submitting the macro command to run the code associated with the keywords with a prefix symbol.

With respect to claim 4, Sakharov and Greenfield failed to disclose, a registry of keywords and associated executable codes is operable to be extended to include one or more new executable codes, each new keyword being associated with a respective one of the new executable codes. Nguyen discloses, a keyword registry of keywords

and associated executable codes is operable to be extended to include one or more new executable codes, each new keyword being associated with a respective one of the new executable codes (col. 6, lines 7-67). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify in Sakharov the teachings of Nguyen because such a modification would allow Sakharov to have 33 keywords that can be used in the source code and for compiling the macro language.

With respect to claim 6, Sakharov discloses, wherein the executable code includes machine operable instructions (pg. 60, para's 2-7). It is inherent that a machine is involved in this process.

Claim 10. Sakharov, Greenfield, Nguyen, and Brooks failed to disclose, The method of Claim 1, wherein identifying the new keyword in the macro language expression comprises recognizing one or more tokens in the macro language expression, and the method further comprises determining based on the predefined macro language that each token indicates the presence of a new macro command associated with the new keyword that is not included in the predefined macro language. McLroy discloses, The method of Claim 1, wherein identifying the new keyword in the macro language expression comprises recognizing one or more tokens in the macro language expression, and the method further comprises determining based on the predefined macro language that each token indicates the presence of a new macro command associated with the new keyword that is not included in the predefined macro language (page 215, col. 2 –page 216, col. 1, 1.5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify in Sakharov with

the teachings of McLroy because such a modification would allow Sakharov to have a macro expression with tokens and keywords.

Claims 11, 15, and 19. Sakharov, Greenfield, Nguyen, and Brooks failed to disclose, further comprising breaking the macro language expression down into a plurality of elements, at least one of the plurality of elements comprising a pointer to the extended macro command. McLroy discloses, further comprising breaking the macro language expression down into a plurality of elements, at least one of the plurality of elements comprising a pointer to the extended macro command (page 216, col. 2, line 1- no. 2).

Claims 12, 16, and 20. Sakharov and Greenfield failed to disclose, wherein the registry of keywords comprises a table of keywords and associated macro commands. Nguyen discloses a relational database with keywords and associated macro commands (col. 5, lines 1-23).

Claims 13, 17, and 21. Sakharov and Greenfield failed to disclose, wherein the registry of keywords comprises a database of keywords and associated macro commands. Nguyen discloses, wherein the registry of keywords comprises a database of keywords and associated macro commands (col. 8, lines 1-57).

Claims 14 and 18. Sakharov failed to disclose, wherein when identifying the new keyword in the macro language expression the parser is operable to: recognize one or more tokens in the macro language expression; and determine based on the predefined macro language that each token indicates the presence of a new macro command associated with the new keyword that is not included in the predefined macro language.

Greenfield discloses, wherein when identifying the new keyword in the macro language expression the parser is operable to: recognize one or more tokens in the macro language expression; and determine based on the predefined macro language that each token indicates the presence of a new macro command associated with the new keyword that is not included in the predefined macro language (col. 8, lines 1-38).

Claim 22, Sakharov discloses, The method of Claim 1, wherein the executable code retrieved from the registry to run the extended macro command associated with the new keyword in the macro language expression is executed without modifying the source code of the macro language (page 60, para. 4-page 61, para. 2).

Response to Arguments

Applicants' arguments with respect to claims 1-4, 6, and 9-22 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 571-272-6741. The examiner can normally be reached on Monday, Tuesday, and Thursday, 5:30AM-3:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dixon Thomas can be reached on 571-272-6803. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ella Colbert/
Primary Examiner, Art Unit 3696

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Examiner

Ella Colbert

Applicant(s)/Patent under
Reexamination

DEFFLER ET AL.

Art Unit

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